

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claim 1 (Previously Presented): A concentration monitor comprising:

a resistivity probe that measures resistivity of a selected one of a plurality of use solutions;

a temperature sensor that measures a temperature of the selected use solution;

a memory that stores a plurality of predetermined algorithms, each associated with a different one of a plurality of product classifications; and

a controller that calculates a concentration of a product in the selected use solution based on the resistivity, the temperature and one of the plurality of the predetermined algorithms associated with a product classification of the product in the selected use solution.

Claim 2 (Previously Presented): The concentration monitor of claim 1 wherein the controller stores information concerning identification of the selected use solution.

Claim 3 (Previously Presented): The concentration monitor of claim 2 wherein the controller receives user selected information concerning identification of the selected use solution a user controllable setting.

Claim 4 (Previously Presented): The concentration monitor of claim 1, further including a user interface that reports the concentration to a user.

Claim 5 (Previously Presented): The concentration monitor of claim 1 wherein the algorithm is linear.

Claim 6 (Previously Presented): The concentration monitor of claim 1 wherein the controller performs a function based upon the concentration.

Claim 7 (Previously Presented): The concentration monitor of claim 1 wherein the controller further controls addition of concentrate of the product to the use solution when the concentration falls below a predetermined level.

Claims 8-13 (Canceled).

Claim 14 (Withdrawn): A method comprising:

- selecting one of a plurality of use solutions;
- measuring a resistivity of the selected use solution;
- measuring a temperature of the selected use solution; and
- calculating a product concentration of the selected use solution based upon the resistivity, the temperature and a predetermined algorithm associated with the selected use solution.

Claim 15 (Withdrawn): The method of claim 14 further comprising reporting the concentration to a user.

Claim 16 (Withdrawn): The method of claim 14 further comprising adding concentrate of the product to the use solution when the concentration falls below a predetermined level.

Claim 17 (Withdrawn): The method of claim 14 further comprising inserting a resistivity probe into the selected use solution and inserting a temperature probe into the selected use solution.

Claim 18 (Previously Presented): The concentration monitor of claim 1 wherein the algorithm is determined based on empirical measurements of use solutions having known product concentrations.

Claim 19 (Previously Presented): The concentration monitor of claim 1 wherein the algorithm is determined based on empirical measurements of the conductivity of use solutions having known product concentrations.

Claim 20 (Previously Presented): The concentration monitor of claim 18 wherein the empirical measurements are taken over a range of temperatures.

Claim 21 (Previously Presented): The concentration monitor of claim 18 wherein the algorithm includes an equation fit to the empirical measurements.

Claim 22 (Previously Presented): The concentration monitor of claim 18 wherein the algorithm includes a lookup table corresponding to the empirical measurements.

Claim 23 (Canceled).

Claim 24 (Currently Amended): The concentration monitor of claim [[22]] wherein the product classification is user selectable.

Claim 25 (Canceled).